

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
(Rev. 2-32) PATENT AND TRADEMARK OFFICE

: ATTY. DOCKET NO. : SERIAL NO.

: 1836.024844 : 236,724

: APPLICANT

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

: Michael Mezei et al.

: FILING DATE : GROUP

(Use several sheets if necessary)

: August 26, 1988

U.S. PATENT DOCUMENTS

EXAMINER	DOCUMENT	DATE	NAME	CLASS	SUBCLASS	FILING DATE
INITIAL	NUMBER	DATE	NAME	CLASS	SUBCLASS	IF APPROPRIATE
PPP	3,645,911	2/1972	van Vesauw et al.	264	4.6	
PPP	3,804,776	4/1974	Yazawa et al.	427	213.3	
PPP	4,016,100	4/1977	Suzuki et al.	264	4.3	
PPP	4,048,310	9/1977	Chen et al.	514	873.3	
PPP	4,089,801	5/1978	Schneider	264	4.1	
PPP	4,235,871	11/1980	Papahadjopoulos et al.	264	4.6	
PPP	4,342,826	8/1982	Cole	436	7	
PPP	4,438,052	3/1984	Weder et al.	264	4.6	
PPP	4,485,054	11/1984	Mezei et al.	264	4.6	
PPP	4,532,089	7/1985	MacDonald	264	4.3	

FOREIGN PATENT DOCUMENTS

EXAMINER	DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
INITIAL	NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES : NO
GBX	2050833A	1/1981	United Kingdom			
DEX	DE3335701A1	4/1981	West Germany			X
EPX	0084898	8/1983	European (Patent Appln.)			
WOX	WO85/03640	8/1985	PCT - Int'l. Appln.			
EPX	85/306641.8	4/1987	European Search Report (Appln.)			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

PPP	Bangham et al., "Diffusion of Univalent Ions Across the Lamellae of Swollen
PPP	Phospholipids", J. Mol. Biol. 13:238-252 (1965)
PPP	Bangham et al., "Osmotic Properties and Water Permeability of Phospholipid
PPP	Lipid Crystals, Chem. Phys. Lipids, 1:225-246 (1967)
PPP	Batzri et al., "Single Bilayer Liposomes Prepared Without Sonication",
PPP	Biochim. et Biophys. Acta, 298:1015-1019

EXAMINER

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LP : : Bangham et al., "Preparation and Use of Liposomes as Models of Biological
 : : Membranes", Methods in Membrane Biology, 6 (London 1974)
 LP : : Papahadjopoulos et al., "Effects of Local Anesthetics on Membrane
 : : Properties", Biochim et Biophys. Acta, 394:504-519 (1975)
 LP : : Theoharides, "Lipsomes as Carriers of Biologically Active Molecules",
 : : Folia Bioch. et Boil. Graeca, Special Issue, Vol XIV, pp. 11-21 (1978)

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FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RLP : : : Mezei et al., "Liposomes - A Selective Drug Delivery System for the Topical
RLP : : : Route of Administration", Life Sciences, Vol 26, pp. 1473-1477 (1980)
RLP : : : Okano et al. "Duration of the Local Anesthetic Action of Dibucaine by Liposomes
RLP : : : and Its Mechanism", Yakugaku Zasshi, Vol. 100 (11) pp. 1097-1103 (1980)
RLP : : : Chemical Abstracts, Vol. 97, No. 22 (1982), Abstract No. 188156k

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NFD : : "The Effect of Local Anaesthetics on the Osmotic Fragility of Liposomes",
 : : Biochemical Pharmacology, Vol. 31, No. 18, pp. 2999-3000 (1982)
 PLD : : Mezei et al., "Liposomes-A Selective Drug Delivery System for the Topical Route
 : : of Administration: Gel Dosage Form", J. Pharm. Pharmacol., 1982, 34:473-474
 PLP : : Cecil - "Textbook of Medicine", Vol. 1 (1982), pp. 1276-1278
 : : 13 14

DATE CONSIDERED 5/23/89

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PLP	:	:Seelig, Biochimica et Biophysica Acta 899 (1987) 296-204	14
PLP	:	:Kuroda et al., Biochimica et Biophysica Acta 903 (1987) 395-410	14
PLP	:	:Bianconi et al., Biochemical and Biophysical Research Communications,	
	:	:Vol. 152(1):344-350 (1988)	

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

PLP : : Seelig et al., Biochimica et Biophysica Acta 939 (1988) 267-276
: : : 14

PLP : : Gesztes et al., Topical Anesthesia of the Skin by Liposome-Encapsulated
: : : Tetracaine, Anesth Analg, Vol. 67:1079-1081 (1988)

PLP : : Mezei, "Liposomes in the Topical Application of Drugs: a Review", Liposomes as
: : : Drug Carriers, Edited by G.. Gregoriadis, John Wiley & Sons Ltd., NY (1988) pp.
: : : 663-677

EXAMINER

P. Prater

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5/23/89

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FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Sheet <u>1</u> of <u>3</u>			
LIST OF PRIOR ART CITED BY APPLICANT <i>(Use several sheets if necessary)</i>				ATTY. DOCKET NO. 1836.023906			
				APPLICANT Michael Mezei			
				FILING DATE _____ GROUP _____			
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
<i>PLP</i> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">↓</div> <div style="margin-left: 10px;"> AA AB AC AD AE AF AG AH AI AJ AK </div> </div>	3 6 4 5 9 1 1	2/29/72	van Vesauw et al.	264	4.6		
	3 8 0 4 7 7 6	4/16/74	Yazawa et al.	427	213.3		
	4 0 1 6 1 0 0	4/5/77	Suzuki et al.	264	4.3		
	4 0 4 8 3 1 0	9/77	Chen et al.	514	873-X		
	4 0 8 9 8 0 1	5/16/78	Schneider	264	4.1		
	4 2 3 5 8 7 1	11/25/80	Papahadjopoulos et al.	264	4.6-X		
	4 3 4 2 8 2 6	8/82	Cole	436	7		
	4 4 3 8 0 5 2	3/20/84	Weder et al.	264	4.6		
	4 4 8 5 0 5 4	11/27/84	Mezei et al.	264	4.6		
	4 5 3 2 0 8 9	7/19/85	MacDonald	264	4.3		
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
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	0 0 8 4 8 9 8	8/83	European (Patent Appln.)				
	WO 8 5 0 3 6 4 0	8/85	PCT - International Appln.				
	85 3 0 6 6 4 1 3	4/87	European Search Report (Appln.)				
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
<i>PLP</i> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">↓</div> <div style="margin-left: 10px;"> AR AS AT </div> </div>	Bangham, et al., Methods in Membrane Biology, 6 (London 1974)						
	Bangham, et al., Chem. Phys. Lipids 1:225-246 (1967)						
	Cecil - "Textbook of Medicine", Vol. 1 (1982), pp. 1276-1278						
EXAMINER <i>PPRater</i>				DATE CONSIDERED <i>5/11/89</i>			
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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
PLO	AR	Chemical Abstracts, Vol. 97, No. 22 (1982), Abstract No. 188156k
PLO	AS	Theoharides, "Liposomes as Carriers of Biologically Active Molecules", <u>Folia Bioch. et Biol. Graeca</u> , Special Issue, Vol. XIV, pp. 11-21 (1978)
PLO	AT	Mezei et al., <u>Life Sciences</u> , Vol. 26, pp. 1473-1477 (1980)

EXAMINER <i>R. Prater</i>	DATE CONSIDERED <i>5/11/89</i>
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